DOCUMENT RESUME

ED 233 558 EC 160 087

AUTHOR Vance, Booney; Gore, William V.
TITLE Correlations of the WRAT and PIAT Reading Recognition Subtest Scores with the VMI And Bender Gestalt.
PUB DATE [83]
NOTE 10p.
AVAILABLE FROM Booney Vance, Department of Education, University of Maryland Eastern Shore, Princess Anne, MD 21853 (no price quoted).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Disabilities; Elementary Secondary Education; Perceptual Motor Coordination; *Test Validity; *Visual Perception
IDENTIFIERS *Bender Gestalt Test; *Visual Motor Integration Test

ABSTRACT

The relationship between word recognition subtests of the Wide Range Achievement Test and Peabody Individual Achievement Test with Bender-Gestalt and the Berry-Buktencia Test of Visual Motor Integration was examined with 27 children (7-14 years old) referred for psychological services. The Bender and Berry tests are among the most popular individual tests administered by school psychologists. Significant correlation coefficients were found among the scores for the total group. Findings from the study suggested the Bender Gestalt and the Berry-Buktencia Test of Visual Motor Integration measure visual-motor perceptual skills which are quite different from each other. (Author/CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED233558

CORRELATIONS OF THE WRAT AND PIAT READING RECOGNITION SUBTEST SCORES WITH THE VMI AND BENDER GESTALT

Booney Vance
University of Maryland
Eastern Shore

William V. Gore
Worcester County Schools

Running Head:B-G/VMI

Request for reprints addressed to Booney Vance, Department of Education, University of Maryland Eastern Shore, Princess Anne, MD 21853

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Booney Vance
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EC160087

Various researchers such as Ysseldyke, Algozzine, Ragan & Potter (1980) and LaGrow & LaGrow (1982) have identified the Bender-Gestalt (B-G) and the Berry-Buktencia Test of Visual Motor Intergration (VMI) as being among the most popular individual tests administered by school psychologists. Kitay (1972) suggested that if possible the BG should be included in every diagnostic exam of adults and children from the age of 5. Some of the reasons for the wide usage of the BG and VMI are: the relative ease of administration and scoring, the non-threatening format, and that both instruments provide information concerning visual motor perception and visual motor coordination.

The VMI (Berry, 1967) is a paper-pencil test which requires the copying of up to 24 geometric forms within specific page positions, locations, and boundary requirements. Reproduction of the forms is scored on a pass-fail basis and the designs may be drawn until three consecutive errors have been made. Scoring criteria is from one to six points based on the difficulty per design. The Bender-Gestalt (Bender, 1938) consists of nine gestalt designs which can be drawn any size and in any position on the paper, however only eight of the nine designs are scored. The first gestalt (Design A) is given as a practice trial. Scoring of the designs is based on the four categories: distortion, rotation, intergration, and perseveration. Each reproduction may be scored for three of the four categories.

Berry (1967) suggests that academic success in school is based on readiness skills such as visual motor perception and intergration. A child's (client) performance on the Bender is generally considered a valid predictor of reading and scholastic aptitude, although some

research has not supported this view (Buckley, 1978). Buckley (1978) in his review of the Bender found that "half of the studies using only children in grades one through five as well as half of those using nonstandard groups such as learning disabled or disadvantaged populations showed no significant correlation with academic performance" (p. 329). He concluded that, "we have no conclusive body of proof that this instrument can be used to predict school achievement, neurological impairment or emotional problems at a statisically acceptable level, on an individual basis" (p. 334).

Few studies have investigated the concurrent validity of the Bender and VMI using two measures of achievement as criterion. The purpose of this study is to provide additional research information concerning the concurrent validity of two of the most popular instruments used by clinicians, the B-G and VMI.

METHOD

Subjects

The sample consisted of 27 children (20 males, 7 females) referred for psychological services from a small rural school district on the Eastern Shore of Maryland. The subjects ranged in age from 7-9 years to 14 years with a mean age of 11-2 years (SD = 2-0). Socioeconomic status ranged from lower to upper middle with a majority being upper lower. Race distribution of the sample was 80% Black and 20% White. The grade placement level ranged from first to eighth with a mean grade placement of 4.7 (SD = 2.1). The children and youth

were administered the VMI and Bender as part of a comprehensive psychological assessment battery The instruments were administered in counterbalanced order within one month of each other by a certified school psychologist. The Bender was scored using the Koppitz's procedure (1975) and the VMI was scored using the procedures outlined in Berry's (1967) manual. Achievement scores were calculated using the Peabody Individual Administered Test (Dunn and Markwardt, 1970) and the Wide Range Achievement Test (Jastak & Jastak, 1978) Reading Grade Level Scores.

RESULTS AND DISCUSSION

Examination of the data summarized in Table 1 indictes that for this sample of children and youth the scores from the VMI and Bender correlated significantly with the word recognition scores of the PIAT and WRAT.

- - - -

percent which is the total variance shared in common by the WRAT and VMI. Positive correlations were found between the Bender and PIAT (r = .40) and between the Bender and WRAT (r.47). The degree of shared variance between the Bender and PIAT and the Bender and WRAT appears rather limited in spite of their satistically significant correlations.

A prevasive pattern of positive correlations was obtained between the VMI and Bender (r = .61). The square of this r indicated that .37 percent of the total variance in these two instruments is held in common. The magnitude of the rs in the present study support Lehman and Breen's (1982) contention that the scores from the VMI and Bender should not be interchangeable. In other words, although statistical significance was found between the VMI and Bender, it appears that the two ability assessors are measuring visual motor perceptual skills which are quite different from each other.

The similarity between the word recognition subtest scores of the PIAT and WRAT appears to be high as indicated by the r of .86. The degree of the shared variance (r^2) between the PIAT and WRAT was 74 percent which indicated that these two word recognition tests are similar. In other words a student who is given both of these word recognition subtests should receive approximately the same standard score.

The findings from the present study indicate that the scores from the VMI and Bender are slightly related to word recognition as measured by the WRAT and PIAT subtests for this sample of referred children. Although these group scores relate to each other,

when applied on an individual basis a considerable number of questions still exist as to the usefulness of these scores such as their effectiveness in measuring what they purport to measure with different diagnostic categories, scoring criteria, age differences and minority groups. As Lehman et al., (1982) indicated many significant questions "must be addressed prior to conclusively stating the degree of comparability and practical uitlity of the Bender and Berry in assessing visual-motor intergration in children" (p. 54).

TABLE 1

Correlations for Scores on WRAT, PIAT, VMI and Bender

Test	WRAT	PIAT	VMI	Bender
WRAT	-	.86***	.42**	.47**
PIAT	.86***	-	.47**	.40**
VMI	.42**	.47**	-	.61***
Bender	.47**	.40**	.61***	-

** $p \leq .01$
*** $p \leq .001$
N = 27

REFERENCES

Bender, L. A Visual Motor Gestalt Test and its clinical use. American Orthopsychiatric Association, Research monographs, 1938, 3.

Berry, K.D. Development Test of Visual Motor Intergration. Administration and Scoring Manual. Chicago: Follilt Publishing Co., 1967.

Buckley, P.D. The Bender Gestalt Test: A review of reported research with school age subjects, 1966-1977. Psychology in the Schools, 1978, 3, 327-338.

Dunn, L.M., & Marwardt, F.C. Peabody Individual Achievement Test. Circle Pines, MN.: American Guidance Service, 1970.

Guilford, J.P., & Fruchter, B. Fundamental statistics in psychology and education, New York: McGraw-Hill, 1978.

Jastak, J., & Jastak, S. Wide Range Achievement Test. Wilmington, DE: Jastak Associates, 1978.

Kitay, D. A review of the Bender Gestalt Test In Buros (Ed.) Seventh mental measurement yearbook, Highland Park, NJ: Grysphon Press, 1972, 161-162.

LaGrow, S.T., & LaGrow, J.E.P. Technical adequacy of the most popular tests selected by responding school psychologist in Illinois. Psychology in the Schools, 1982, 19, 186-189.

Lehman, I. & Breen, M.J. A comparative Analysis of the Bender Gestalt Beery/Buktencia Tests of Visual-Motor Integration as a Function of grade level for regular education student. Psychology in the Schools, 1982, 1, 52-54.

Ysseldykle, J.E., Algozzine, B., Began, R., & Potter, M. Technical adequacy of tests used by professionals in simulated decision-making. Psychology in the Schools, 1980, 17, 202-209.

EC160087

Abstract

The study investigated the relationship between word recognition subtests of Wide Range Achievement Test and Peabody Individual Achievement Test with Bender-Gestalt and Berry-Buktencia. The sample consisted of 27 children (20 males, 7 females) whose age ranged from 7-9 years to 14-0 years with a mean age of 11-2 years. Significant correlation coefficients were found among the scores for the total group. Findings from the present study suggest that the Bender Gestalt and Berry (VMI) are measuring visual-motor perceptual skills which are quite different from each other.